Baraboo River Restoration

Objectives:
Remove the Linen Mill Dam and restore the reach of the Baraboo River in that vicinity. This will in effect restore 120 miles of the Baraboo River to fish migration and use that was historically present 100-150 years ago before the dams were built on the river. The Linen Mill Dam is the last remaining dam on the Baraboo River and the most significant in terms of blocking fish migration and population of the river because it is the lower most dam on the river system. Addressing the blockage of fish migration at the Linen Mill site will improve the Baraboo River system as a whole – since this is now the only dam left on the mainstem of the Baraboo River. When the blockage of fish migration at the Linen Mill site is eventually removed, then fish species such as lake sturgeon, walleye, sauger, bigmouth buffalo, and freshwater drum can then access the upper reaches of the Baraboo River for spawning. Allowing fish to migrate freely on the river will also benefit mussel populations because they depend on fish as hosts the mussel larvae. This would also benefit the fishery of the Lower Wisconsin, where many of the fishes that would spawn in the upper Baraboo River reside.

The Linen Mill Dam is located at the downstream side and just east of the City of Baraboo, 45 miles northeast of Madison in Section 6, T11N, R7E. The dam was originally constructed in 1898 and has been modified, rebuilt, and rehabilitated. The length of the maximum pool upstream of the dam is approximately 1.5 miles and the size of the pool is 7 acres. The dam consists of a small powerhouse, a large uncontrolled spillway and a small auxiliary spillway. The original use of the dam was to provide power for a linen mill. It presently is used to produce a small amount of electrical power. The structural portions of the facility consist of timber, concrete, masonry, rock and gravel fill, and earth. The bottom of the impounded area consists of sand and silt.

This project will involve the physical removal of the dam, the stabilization of the site, containment and removal of sediment, and any associated habitat enhancements. Removal will begin with a breach of the spillway and a slow drawdown of the millponds. Sediment accumulation in the millpond will be evaluated after drawdown, and it may be mechanically removed via dredging. The spillway will be removed and concrete and rock will be used to fill in the power canal. The headrace area will be filled with material from the spillway along with additional material to form the bank area in line with upstream and downstream banks. Power lines will need to be relocated; disturbed banks will be shaped, top dressed, and seeded. A hydraulic hammer mounted on a backhoe will be used for demolition work. Excavation and grading activity will also occur. The silty material, if removed, will be landspread and the waste not incorporated into the site restoration will be trucked off site for disposal.

Accomplishments:
This project was completed in October 2001. This will restore 120 miles of the Baraboo River to fish migration and use that was historically present 100-150 years ago before the dams were built on the river. The Linen Mill Dam was the last remaining dam on the Baraboo River and the most significant in terms of blocking fish migration and population of the river because it is the lower most dam on the river system. Addressing the blockage of fish migration at the Linen Mill Dam Site on will improve the Baraboo River system as whole--since this was the only dam left on the mainstem of the Baraboo River. Fish species such as lake sturgeon, walleye, sauger, bigmouth buffalo, and freshwater drum can now access the upper reaches of the Baraboo River for spawning. Allowing fish to migrate freely on the river will also benefit mussel populations because they depend on fish as hosts the mussel larvae. Lake Sturgeon have been reported in the Baraboo Rapids area.